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AMS-66
(Supplement No. 3)

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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division

U. S. DEPARTMENT OF AGRICULTURE

FIBER AND SPINNING TEST RESULTS FOR SOME VARIETIES OF COTTON GROWN BY SELECTED COTTON IMPROVEMENT GROUPS, CROP OF 1955 1/

Results of fiber and spinning tests of some of the earlier harvested cottons grown commercially in 1955 by selected cotton improvement groups were presented in reports issued in August, September and October, 1955. 2/ This supplement contains results for cottons that have been harvested and tested since publication of the earlier reports. Some of the cottons for which test data are presented here are from the same areas represented in the earlier reports, but they were harvested at a later date. For a given variety produced in the same area, there are, naturally, differences between cotton harvested in the early season and that harvested later in the season. Additional supplemental reports will be issued as the harvesting season progresses throughout the Cotton Belt.

The criteria for selection of areas and samples and for evaluating test data are essentially the same as for former years, and, together with the manufacturing organization and some of the more important settings used for processing, have been described in previous publications. 3/

The spinning lots represent commercially grown cotton of even-running grade and staple from many bales of the specified varieties. Qualities other than those included in this report are, of course, available in each of the market areas listed as a result of normal seasonal and soil variations.

Processing results for the 1955 crop cottons will be based, as in previous years, on four different rates of carding. The cottons reported on in this supplement were processed in accordance with the organization for Groups 1, 2, 3, and 4, (card production rates of 12-1/2 pounds, 9-1/2 pounds, 6-1/2 pounds, and 4-1/2 pounds per hour, respectively). The carding rate for the cottons included in Group 4 has been changed from 3-1/2 pounds to 4-1/2 pounds per hour. This change was made because a recent survey indicates that 4-1/2 pounds per hour is more nearly in line with present practice in processing extra long staple cottons. Other details of the processing organization have not been changed for this Group. The test results are reported in Tables 1, 2, 3, and 4.

1/ Prepared in the Standards and Testing Branch.

2/ Fiber and Spinning Test Results for Some Varieties of Cotton Grown by Selected Cotton Improvement Groups, Crop of 1955.

3/ Summary of Fiber and Spinning Test Results for Some Varieties of Cotton Grown by Selected Cotton Improvement Groups, Crop of 1954.

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 12-1/2 pounds per hour, crop of 1955

Test item	Results for specified variety, state, market area, and period of harvest	
	Lockett SP-I	Rowden
	Texas	
	Lubbock	Corsicana
	Early	Late
Raw Cotton Quality		
Grade (official standards)	SLM	SLM
Staple length----------inches	29/32	31/32
Fiber length (Fibrograph):		
Upper half mean---------inches	.88	.93
Uniformity ratio----------	80	80
Fiber fineness--------ug./in. 1/	4.4	5.5
Fiber maturity----------index 1/	73	83
Fiber tensile strength: 2/		
1/8" gauge----------index 3/	83	97
Zero gauge--------1,000 p.s.i.	68	82
Nonlint content-------percent 4/	3.0	3.4
Color of cleaned lint (R_d/b) 5/	72.0/9.4	73.2/9.0
Sugar content----------percent	0.2	0.1
Processing Results		
Picker and card waste----percent	8.8	10.0
Neps per 100 sq. in. of card web	19	7
Yarn skein strength:		
8s----------pounds	281	294
22s----------pounds	87	90
Average break factor----------	2081	2166
Yarn appearance:		
8s----------grade	B+	B+
22s----------grade	B	B
Average index----------	115	115

1/ Determined by the Causticaire method using the Micronaire instrument.
2/ Determined by Pressley instrument.
3/ Index of 100 equals average strength of 1954 commercial crop of upland cotton.
4/ Determined by Shirley Analyzer.
5/ Determined by Nickerson-Hunter Colorimeter on lint cleaned by Shirley Analyzer.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955

Test item	Results for specified variety, state, market area, and period of harvest				
	Acala 4-42				
	California				
	Bakersfield	Blythe		Corcoran	El Centro
	Early	Early	Midseason	Early	Early
Raw Cotton Quality					
Grade (official standards)	SM	SM	SM	M+	SM
Staple length----------inches	1-3/32	1-1/16	1-3/32	1-1/8	1-3/32
Fiber length (Fibrograph)					
Upper half mean---------inches	1.07	1.05	1.07	1.06	1.04
Uniformity ratio-----------	79	79	80	80	79
Fiber fineness--------ug./in. 1/	4.6	4.4	4.3	4.4	4.3
Fiber maturity----------index 1/	79	79	79	78	79
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	111	113	117	118	122
Zero gauge--------1,000 p.s.i.	91	88	89	91	94
Nonlint content-------percent 4/	2.1	2.9	2.4	2.9	3.0
Color of cleaned lint (R_d/b) 5/	79.5/8.7	79.5/8.7	80.0/8.2	80.0/8.1	79.5/8.3
Sugar content----------percent	0.3	0.2	0.2	0.2	0.1
Processing Results					
Picker and card waste----percent	8.2	8.1	7.3	7.5	7.0
Neps per 100 sq. in. of card web	15	13	14	13	9
Yarn skein strength:					
22s--------------------pounds	127	122	125	138	127
50s--------------------pounds	45	42	43	48	44
Average break factor----------	2522	2392	2450	2718	2497
Yarn appearance:					
22s----------------------grade	C+	B	B	B	B
50s----------------------grade	C	C	C	C+	C+
Average index----------------	95	100	100	105	105

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Acala 4-42: California	A - 44: Arizona			
	Tulare	Chandler	Eloy	Phoenix	Yuma
	Early	Early	Early	Early	Early
Raw Cotton Quality					
Grade (official standards)	SM	M	M	M	M
Staple length----------inches	1-3/32	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.04	1.06	1.05	1.07	1.07
Uniformity ratio-----------	79	81	79	79	79
Fiber fineness--------ug./in. 1/	4.4	4.3	4.1	4.3	4.2
Fiber maturity----------index 1/	78	79	78	80	78
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	112	112	109	105	105
Zero gauge--------1,000 p.s.i.	93	84	84	82	85
Nonlint content-------percent 4/	2.7	2.9	3.5	3.9	3.1
Color of cleaned lint (R_d/b) 5/	78.5/8.3	76.0/9.0	76.5/9.0	75.5/9.0	77.0/9.1
Sugar content----------percent	0.1	0.2	0.2	0.2	0.2
Processing Results					
Picker and card waste----percent	7.9	8.2	8.3	10.6	9.7
Neps per 100 sq. in. of card web	12	11	15	13	13
Yarn skein strength:					
22s----------pounds	124	113	118	103	105
50s----------pounds	42	40	40	35	36
Average break factor----------	2414	2243	2298	2008	2055
Yarn appearance:					
22s----------grade	C+	B	C+	C+	C+
50s----------grade	D+	C	C	C	C
Average index----------	90	100	95	95	95

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	A-44	Bobshaw 1A	Coker 100W		
	Arizona	Mississippi	Alabama		
	Yuma	Indianola	Florence	Huntsville	
	Midseason	Midseason	Midseason	Early	Midseason
Raw Cotton Quality					
Grade (official standards)	M	SLM	SLM	M+	M
Staple length----------inches	1-3/32	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph)					
Upper half mean---------inches	1.08	1.09	1.04	1.05	1.05
Uniformity ratio----------	81	79	80	81	82
Fiber fineness--------ug./in. 1/	4.2	4.4	4.0	4.3	4.4
Fiber maturity----------index 1/	78	78	74	76	78
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	111	104	95	99	98
Zero gauge--------1,000 p.s.i.	90	82	75	76	74
Nonlint content-------percent 4/	3.0	4.5	4.4	2.2	2.6
Color of cleaned lint (R_d/b) 5/	76.0/8.5	72.5/8.6	77.2/8.5	78.7/8.9	77.5/8.9
Sugar content----------percent	0.3	0.2	0.3	0.2	0.3
Processing Results					
Picker and card waste----percent	8.2	10.1	9.2	7.3	6.7
Neps per 100 sq. in. of card web	16	24	11	9	15
Yarn skein strength:					
22s----------pounds	117	106	128	125	126
50s----------pounds	41	36	44	44	43
Average break factor----------	2312	2066	2508	2475	2461
Yarn appearance:					
22s----------grade	C+	C+	B	B	C+
50s----------grade	D+	D+	C+	C+	C+
Average index----------	90	90	105	105	100

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Coker 100W				
	Alabama				Georgia
	Thomasville	Troy	Wetumpka		Cartersville
	Late	Late	Midseason	Late	Midseason
Raw Cotton Quality					
Grade (official standards)	LM+	SLM	M	M	M
Staple length----------inches	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph)					
Upper half mean---------inches	1.09	1.05	1.00	1.07	1.06
Uniformity ratio----------	81	77	78	79	80
Fiber fineness--------ug./in. 1/	4.3	4.4	4.0	4.1	4.2
Fiber maturity---------index 1/	77	76	75	75	77
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	100	93	102	100	96
Zero gauge---------1,000 p.s.i.	73	76	78	75	70
Nonlint content-------percent 4/	4.5	2.9	2.5	2.7	1.8
Color of cleaned lint (R_d/b) 5/	74.0/8.8	75.0/9.0	78.0/8.6	78.3/8.4	76.5/8.6
Sugar content----------percent	0.2	0.2	0.2	0.3	0.2
Processing Results					
Picker and card waste----percent	9.4	8.0	6.9	7.7	6.9
Neps per 100 sq. in. of card web	15	16	8	21	19
Yarn skein strength:					
22s--------------------pounds	115	108	121	119	120
50s--------------------pounds	41	38	43	43	43
Average break factor----------	2290	2138	2406	2384	2395
Yarn appearance:					
22s--------------------grade	C+	B	B	C+	C+
50s--------------------grade	C+	C+	C+	C+	C+
Average index----------	100	105	105	100	100

Continued on page 7

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Coker 100 W				
	Georgia			Mississippi	North Carolina
	Jonesboro	Madison	Sandersville	Heathman	Monroe
	Early	Late	Late	Midseason	Early
Raw Cotton Quality					
Grade (official standards)	M	SLM	SLM	SLM	M
Staple length----------inches	1-1/16	1-1/32	1-1/16	1-1/16	1-1/32
Fiber length (Fibrograph):					
Upper half mean---------inches	1.02	1.02	1.05	1.06	1.05
Uniformity ratio----------	81	81	77	79	80
Fiber fineness--------ug./in. 1/	4.2	4.3	3.6	4.4	4.1
Fiber maturity----------index 1/	76	80	72	78	77
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	103	99	96	106	97
Zero gauge--------1,000 p.s.i.	79	79	72	78	71
Nonlint content-------percent 4/	2.1	3.5	3.2	4.8	3.9
Color of cleaned lint (R_d/b) 5/	77.5/9.2	74.8/8.8	76.0/8.6	73.0/8.7	73.5/8.8
Sugar content----------percent	0.2	0.2	0.0	0.2	0.0
Processing Results					
Picker and card waste----percent	6.9	7.1	8.6	9.0	7.5
Neps per 100 sq. in. of card web	10	8	17	15	11
Yarn skein strength:					
22s----------pounds	124	119	112	110	121
50s----------pounds	43	40	39	37	42
Average break factor----------	2439	2309	2207	2135	2381
Yarn appearance:					
22s----------grade	C+	B	C+	B	B
50s----------grade	C+	C+	C	C	C+
Average index----------	100	105	95	100	105

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Coker 100 W				Deltapine Fox
	North Carolina		South Carolina		Mississippi
	Scotland Neck		Dillon	Westminister	Gunnison
	Early	Midseason	Midseason	Midseason	Midseason
Raw Cotton Quality					
Grade (official standards)	SLM	SLM	LM	M	SLM
Staple length----------inches	1-1/32	1-1/32	1	1-1/16	1-1/32
Fiber length (Fibrograph):					
Upper half mean---------inches	1.00	1.03	.97	1.05	1.07
Uniformity ratio----------	78	78	78	84	80
Fiber fineness--------ug./in. 1/	4.6	4.6	4.3	4.9	4.6
Fiber maturity----------index 1/	77	78	76	78	79
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	92	94	90	102	102
Zero gauge--------1,000 p.s.i.	72	72	73	77	76
Nonlint content-------percent 4/	3.2	4.0	5.1	3.0	2.3
Color of cleaned lint (R_d/b) 5/	69.5/8.6	68.8/8.6	67.0/8.5	78.5/9.0	72.5/8.8
Sugar content----------percent	0.0	0.0	0.0	0.2	0.3
Processing Results					
Picker and card waste----percent	7.9	9.2	9.4	8.2	9.2
Neps per 100 sq. in. of card web	20	10	16	4	11
Yarn skein strength:					
22s----------pounds	100	96	100	124	109
50s----------pounds	34	32	35	43	36
Average break factor----------	1950	1856	1975	2439	2099
Yarn appearance:					
22s----------grade	C+	C+	C+	B+	B+
50s----------grade	C+	C	C+	B	C+
Average index----------	100	95	100	115	110

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine Fox	Deltapine 15			
	Missouri	Alabama			Arkansas
	Hayti	Florence	Sulligent		Bradley
	Midseason	Early	Early	Midseason	Midseason
Raw Cotton Quality					
Grade (official standards)	M	SLM+	M	SLM+	SLM
Staple length----------inches	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.05	1.04	1.06	1.03	1.07
Uniformity ratio----------	80	80	82	81	80
Fiber fineness--------ug./in. 1/	4.4	4.2	4.2	3.9	4.4
Fiber maturity----------index 1/	77	75	76	73	79
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	103	100	101	99	100
Zero gauge--------1,000 p.s.i.	79	78	76	76	79
Nonlint content-------percent 4/	3.0	3.6	3.0	4.0	3.4
Color of cleaned lint (R_d/b) 5/	75.0/8.6	75.5/8.8	79.0/8.8	77.8/8.6	74.0/8.4
Sugar content----------percent	0.0	0.4	0.2	0.3	0.0
Processing Results					
Picker and card waste----percent	9.0	8.7	6.5	7.9	8.3
Neps per 100 sq. in. of card web	12	6	6	13	12
Yarn skein strength:					
22s----------pounds	115	128	128	129	114
50s----------pounds	39	46	46	45	38
Average break factor----------	2240	2558	2558	2544	2204
Yarn appearance:					
22s----------grade	B	B	B	B	B
50s----------grade	C	C+	B	C+	C+
Average index----------	100	105	110	105	105

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine 15				
	Arkansas				
	Marion	Marianna		Marked Tree	Pine Bluff
	Midseason	Early	Midseason	Midseason	Midseason
Raw Cotton Quality					
Grade (official standards)	LM	M	SLM	SLM	SLM
Staple length----------inches	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.10	1.06	1.08	1.06	1.10
Uniformity ratio----------	79	79	80	79	80
Fiber fineness--------ug./in. 1/	4.3	4.3	4.4	4.6	4.3
Fiber maturity----------index 1/	76	76	76	80	80
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	104	102	103	108	111
Zero gauge--------1,000 p.s.i.	79	85	79	82	79
Nonlint content-------percent 4/	7.2	3.3	3.9	3.4	3.0
Color of cleaned lint (R_d/b) 5/	72.0/9.2	77.0/8.8	75.5/8.6	76.8/7.9	72.0/8.5
Sugar content----------percent	0.2	0.1	0.1	0.2	0.1
Processing Results					
Picker and card waste----percent	12.1	8.5	8.6	8.9	8.2
Neps per 100 sq. in. of card web	14	9	13	8	18
Yarn skein strength:					
22s----------pounds	115	122	114	119	118
50s----------pounds	40	41	40	41	42
Average break factor----------	2265	2367	2254	2334	2348
Yarn appearance:					
22s----------grade	B	B	B	B	B+
50s----------grade	C	C+	C	C+	C+
Average index----------	100	105	100	105	110

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Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine 15				
	Louisiana				
	Bossier City	Chenney-ville	Lake Providence	Mer Rouge	Natchi-toches
	Midseason	Midseason	Midseason	Midseason	Midseason
Raw Cotton Quality					
Grade (official standards)	M	LM	M	M	SLM
Staple length----------inches	1-1/16	1-1/16	1-3/32	1-1/16	1-1/32
Fiber length (Fibrograph):					
Upper half mean---------inches	1.02	1.03	1.04	1.04	1.06
Uniformity ratio----------	78	80	78	79	80
Fiber fineness--------ug./in. 1/	4.8	4.3	4.4	4.3	4.6
Fiber maturity----------index 1/	81	79	76	77	80
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	96	92	101	102	95
Zero gauge--------1,000 p.s.i.	72	72	78	75	74
Nonlint content-------percent 4/	2.6	5.6	3.5	3.0	2.6
Color of cleaned lint (R_d/b) 5/	76.8/9.2	74.5/9.5	76.5/9.0	75.5/8.9	73.0/8.9
Sugar content----------percent	0.1	0.0	0.1	0.0	0.0
Processing Results					
Picker and card waste----percent	8.9	11.1	7.5	6.7	9.6
Neps per 100 sq. in. of card web	12	12	11	15	14
Yarn skein strength:					
22s----------pounds	107	99	113	112	94
50s----------pounds	37	32	38	39	31
Average break factor----------	2102	1889	2193	2207	1809
Yarn appearance:					
22s----------grade	B+	B	B	B	B
50s----------grade	C+	C+	C+	C+	C
Average index----------	110	105	105	105	100

Continued on page 12

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest			
	Deltapine 15			
	Louisiana			
	Tallulah		Ville Platte	Winnsboro
	Early	Midseason	Midseason	Midseason
Raw Cotton Quality				
Grade (official standards)	LM	LM	M	M
Staple length----------inches	1-3/32	1-3/32	1-1/16	1-1/16
Fiber length (Fibrograph):				
Upper half mean---------inches	1.07	1.05	1.06	1.03
Uniformity ratio-----------	80	78	81	80
Fiber fineness--------ug./in. 1/	3.7	3.6	4.5	4.7
Fiber maturity----------index 1/	72	71	79	79
Fiber tensile strength: 2/				
1/8" gauge----------index 3/	105	105	94	98
Zero gauge--------1,000 p.s.i.	79	77	75	76
Nonlint content-------percent 4/	7.9	7.5	3.6	4.9
Color of cleaned lint (R_d/b) 5/	74.5/8.7	72.5/8.5	77.5/9.4	73.5/9.3
Sugar content----------percent	0.1	0.2	0.2	0.0
Processing Results				
Picker and card waste----percent	16.9	13.5	9.0	9.5
Neps per 100 sq. in. of card web	26	33	6	8
Yarn skein strength:				
22s--------------------pounds	121	112	114	108
50s--------------------pounds	42	38	38	37
Average break factor----------	2381	2182	2204	2113
Yarn appearance:				
22s--------------------grade	C+	C+	B	B+
50s--------------------grade	D+	D+	C+	C+
Average index----------------	90	90	105	110

Continued on page 13

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine 15				
	Mississippi				
	Aberdeen	Belzoni	Clarksdale	Doddsville	Fayette
	Midseason	Midseason	Midseason	Midseason	Midseason
Raw Cotton Quality					
Grade (official standards)	SLM	SLM+	SLM	SLM	M
Staple length----------inches	1-1/16	1-3/32	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.02	1.09	1.06	1.01	1.03
Uniformity ratio-----------	79	80	80	79	79
Fiber fineness---------ug./in. [1/]	4.3	4.5	4.4	4.4	4.4
Fiber maturity----------index [1/]	76	78	78	80	78
Fiber tensile strength: [2/]					
1/8" gauge----------index [3/]	100	105	104	108	94
Zero gauge--------1,000 p.s.i.	79	78	77	78	76
Nonlint content-------percent [4/]	4.8	3.1	3.6	3.9	2.2
Color of cleaned lint (R_d/b) [5/]	76.5/8.6	78.0/8.1	74.3/8.7	75.8/8.3	77.7/9.3
Sugar content----------percent	0.3	0.0	0.0	0.3	0.1
Processing Results					
Picker and card waste----percent	10.6	7.6	8.9	8.6	8.4
Neps per 100 sq. in. of card web	17	11	10	12	12
Yarn skein strength:					
22s----------pounds	109	121	116	117	104
50s----------pounds	37	42	39	39	35
Average break factor----------	2124	2381	2251	2262	2019
Yarn appearance:					
22s----------grade	B	B+	B+	B+	B
50s----------grade	D+	C+	C	C+	C+
Average index----------	95	110	105	110	105

Continued on page 14

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine 15				
	Mississippi				
	Fayette	Greenville	Macon		Magee
	Late	Midseason	Midseason	Late	Midseason
Raw Cotton Quality					
Grade (official standards)	SM1t.sp.	LM	M	SGO+	M
Staple length----------inches	1-1/16	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.01	1.06	1.05	1.04	1.04
Uniformity ratio-----------	79	79	80	80	79
Fiber fineness--------ug./in. 1/	4.4	4.3	4.2	3.9	4.3
Fiber maturity----------index 1/	78	77	77	73	76
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	95	100	102	105	100
Zero gauge--------1,000 p.s.i.	74	75	74	78	75
Nonlint content-------percent 4/	2.0	6.4	3.3	8.0	3.7
Color of cleaned lint (R_d/b) 5/	75.0/9.4	71.0/8.4	79.0/9.2	75.0/8.3	78.5/9.0
Sugar content----------percent	0.1	0.1	0.3	0.2	0.3
Processing Results					
Picker and card waste----percent	7.9	12.4	8.7	13.3	9.1
Neps per 100 sq. in. of card web	9	20	8	16	11
Yarn skein strength:					
22s--------------------pounds	101	112	117	116	111
50s--------------------------	34	38	40	40	38
Average break factor----------	1961	2182	2287	2276	2171
Yarn appearance:					
22s--------------------grade	B	B	B	B	B
50s--------------------grade	C+	C	C+	C	C+
Average index-----------------	105	100	105	100	105

Continued on page 15

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine 15				
	Mississippi		Missouri	Tennessee	
	Magee	Senatobia	Caruthers-ville	Browns-ville	Covington
	Late	Midseason	Midseason	Midseason	Midseason
Raw Cotton Quality					
Grade (official standards)	SLM	SLM	M	M	M
Staple length----------inches	1-1/16	1-1/16	1-3/32	1-1/16	1-1/16
Fiber length (Fibrograph):					
Upper half mean--------inches	1.05	1.07	1.09	1.04	1.00
Uniformity ratio----------	81	80	79	80	79
Fiber fineness--------ug./in. [1/]	4.3	4.3	4.3	4.3	4.1
Fiber maturity----------index [1/]	77	79	76	77	75
Fiber tensile strength: [2/]					
1/8" gauge----------index [3/]	95	99	107	100	106
Zero gauge--------1,000 p.s.i.	74	76	78	79	82
Nonlint content-------percent [4/]	4.1	3.8	2.8	3.4	2.2
Color of cleaned lint (R_d/b) [5/]	75.0/9.2	75.0/8.8	76.5/8.5	77.5/8.7	77.8/8.5
Sugar content----------percent	0.1	0.1	0.1	0.2	0.1
Processing Results					
Picker and card waste----percent	10.3	9.0	7.8	7.8	7.7
Neps per 100 sq. in. of card web	9	11	12	14	11
Yarn skein strength:					
22s----------pounds	111	113	118	116	117
50s----------pounds	38	37	39	39	41
Average break factor----------	2171	2168	2273	2251	2312
Yarn appearance					
22s----------grade	B+	B+	B	B	B+
50s----------grade	C+	C+	C	C+	C+
Average index----------	110	110	100	105	110

Continued on page 16

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine 15				Empire
	Tennessee		Texas		Georgia
	Millington	Wynnburg	De Kalb	Munday	Buchanan
	Midseason	Midseason	Late	Early	Early
Raw Cotton Quality					
Grade (official standard)	SLM	M	SLM	SLM	SLM+
Staple length----------inches	1-1/16	1-3/32	1-1/32	1-1/32	1-1/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.05	1.10	.99	1.04	1.07
Uniformity ratio----------	80	81	79	80	80
Fiber fineness--------ug./in. 1/	4.2	4.3	4.2	4.4	4.2
Fiber maturity---------index 1/	75	78	77	80	78
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	106	107	105	104	102
Zero gauge--------1,000 p.s.i.	83	82	79	83	80
Nonlint content-------percent 4/	4.6	2.9	3.0	3.4	3.6
Color of cleaned lint (R_d/b) 5/	77.2/8.6	76.0/9.0	74.0/9.1	73.5/9.7	77.7/8.8
Sugar content----------percent	0.2	0.2	0.0	0.1	0.3
Processing Results					
Picker and card waste----percent	9.3	8.1	8.9	9.1	8.7
Neps per 100 sq. in. of card web	10	14	14	10	13
Yarn skein strength:					
22s----------pounds	121	124	107	116	126
50s----------pounds	40	45	36	39	46
Average break factor----------	2331	2489	2077	2251	2536
Yarn appearance:					
22s----------grade	B	B+	B	B+	B
50s----------grade	C+	C	C	C+	C+
Average index----------	105	105	100	110	105

Continued on page 17

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Empire		Lankart 57		
	Georgia		Oklahoma		Texas
	Fayetteville		Clinton	Mangum	Hillsboro
	Early	Midseason	Early	Early	Late
Raw Cotton Quality					
Grade (official standards)	M	SLM+	LM	M+	LM
Staple length----------inches	1-1/16	1-1/16	1	1	15/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.03	1.02	1.00	.94	.91
Uniformity ratio----------	81	81	80	79	79
Fiber fineness--------ug./in. 1/	4.2	4.2	4.1	4.2	4.8
Fiber maturity---------index 1/	74	75	72	74	80
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	98	102	100	99	94
Zero gauge--------1,000 p.s.i.	80	86	80	81	74
Nonlint content-------percent 4/	3.2	3.4	5.5	3.0	7.3
Color of cleaned lint (R_d/b) 5/	78.0/8.8	77.2/8.8	74.0/9.7	76.5/9.6	70.5/9.7
Sugar content----------percent	0.2	0.3	0.2	0.2	0.2
Processing Results					
Picker and card waste----percent	8.4	7.6	11.9	9.9	12.8
Neps per 100 sq. in. of card web	11	12	28	16	10
Yarn skein strength:					
22s----------pounds	125	124	109	115	92
50s----------pounds	43	43	37	39	30
Average break factor----------	2450	2439	2124	2240	1762
Yarn appearance:					
22s----------grade	B	C+	C+	C+	B
50s----------grade	C+	C+	C	C+	C+
Average index----------	105	100	95	100	105

Continued on page 18

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Lankart 57			Lankart 611	Northern Star
	Texas				
	Lubbock	Stamford	Waco	Idalou	O'Brien
	Early	Early	Late	Early	Early
Raw Cotton Quality					
Grade (official standards)	LM	M	SLM	SLM	M
Staple length----------inches	1	15/16	15/16	1	1
Fiber length (Fibrograph):					
Upper half mean---------inches	.99	.90	.94	.97	.96
Uniformity ratio----------	80	80	80	78	79
Fiber fineness--------ug./in. 1/	5.0	4.3	4.8	4.4	4.2
Fiber maturity----------index 1/	79	73	76	76	74
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	84	100	90	91	98
Zero gauge--------1,000 p.s.i.	63	80	77	70	90
Nonlint content-------percent 4/	3.8	2.6	2.2	3.2	3.2
Color of cleaned lint (R_d/b) 5/	69.0/9.6	74.0/9.7	72.0/9.8	70.0/9.8	76.5/9.4
Sugar content----------percent	0.0	0.2	0.0	0.0	0.2
Processing Results					
Picker and card waste----percent	9.7	8.1	10.4	9.9	9.7
Neps per 100 sq. in. of card web	13	11	8	10	16
Yarn skein strength:					
22s----------pounds	87	107	90	93	120
50s----------pounds	29	35	28	31	39
Average break factor----------	1682	2052	1690	1798	2295
Yarn appearance:					
22s----------grade	B	B	B+	B	C+
50s----------grade	C	C	C+	C	C
Average index----------	100	100	110	100	95

Continued on page 19

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Northern Star	Plains		Stoneville 2B	
	Texas	Alabama		Arkansas	Missouri
	O'Brien	Centre		McGehee	Horners-ville
	Midseason	Early	Midseason	Midseason	Midseason
Raw Cotton Quality					
Grade (official standards)	SLM	M	M	SLM	M
Staple length----------inches	1	1-1/32	1-1/32	1-1/32	1-1/16
Fiber length (Fibrograph):					
Upper half mean---------inches	1.01	.99	.99	1.05	1.08
Uniformity ratio-----------	79	80	81	79	80
Fiber fineness--------ug./in. 1/	4.4	4.1	4.1	3.9	4.0
Fiber maturity----------index 1/	76	72	76	73	73
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	94	99	103	95	104
Zero gauge--------1,000 p.s.i.	76	79	79	81	83
Nonlint content-------percent 4/	4.4	2.5	2.8	4.0	3.3
Color of cleaned lint (R_d/b) 5/	74.5/9.1	77.5/8.7	78.0/8.8	74.0/8.5	76.5/8.4
Sugar content----------percent	0.1	0.2	0.3	0.2	0.2
Processing Results					
Picker and card waste----percent	9.2	8.0	8.7	9.3	8.8
Neps per 100 sq. in. of card web	12	9	12	14	16
Yarn skein strength:					
22s--------------------pounds	105	123	126	103	114
50s--------------------pounds	35	44	44	35	40
Average break factor----------	2030	2453	2486	2008	2254
Yarn appearance:					
22s--------------------grade	B	B	B	C+	B
50s--------------------grade	C	C+	C+	D+	C
Average index-----------------	100	105	105	90	100

1/ Determined by the Causticaire method using the Micronaire instrument.
2/ Determined by Pressley instrument.
3/ Index of 100 equals average strength of 1955 commercial crop of upland cotton.
4/ Determined by Shirley Analyzer.
5/ Determined by Nickerson-Hunter Colorimeter on lint cleaned by Shirley Analyzer.

Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 6-1/2 pounds per hour, crop of 1955

Test item	Results for specified variety, state, market area, and period of harvest			
	Acala 1517 C			
	New Mexico			Texas
	Artesia	Carlsbad	Las Cruces	Pecos
	Early	Early	Early	Early
Raw Cotton Quality				
Grade (official standards)	SM	M	SM	M
Staple length----------inches	1-5/32	1-5/32	1-5/32	1-5/32
Fiber length (Fibrograph):				
Upper half mean----------inches	1.13	1.14	1.18	1.14
Uniformity ratio----------	80	78	80	79
Fiber fineness---------ug./in. 1/	4.0	3.9	3.9	3.9
Fiber maturity----------index 1/	77	80	76	77
Fiber tensile strength: 2/				
1/8" gauge----------index 3/	112	118	113	107
Zero gauge---------1,000 p.s.i.	82	84	83	82
Nonlint content--------percent 4/	2.0	3.2	1.6	2.2
Color of cleaned lint (R_d/b) 5/	76.5/8.6	75.5/8.7	79.5/8.6	75.5/8.8
Sugar content----------percent	0.2	0.0	0.2	0.0
Processing Results				
Picker and card waste-----percent	7.3	7.3	7.0	7.2
Comber waste----------percent	15.1	14.0	14.0	15.0
Neps per 100 sq. in. of card web	9	13	15	21
Yarn skein strength:				
22s----------pounds	132(146)	138(150)	143(155)	130(144)
50s----------pounds	47(50)	50(55)	51(56)	46(51)
Average break factor----------	2627(2856)	2768(3025)	2848(3105)	2580(2859)
Yarn appearance:				
22s----------grade	C+(B+)	B (B+)	B (B+)	C+(B)
50s----------grade	C (B)	C (B)	C+(B)	C (C+)
Average index----------	95(115)	100(115)	105(115)	95(105)

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Table 3.--Results of classification, fiber tests, and carded and combed (in parentheses) yarn processing tests for specified varieties of cotton grown in deisgnated market areas, processed at a card production rate of 6-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Coker 100 W			Delfos 9169	
	Mississippi:	North Carolina		Arkansas	
	Greenwood	Shelby		Blytheville	Pine Bluff
	Midseason	Early	Midseason	Midseason	Early
Raw Cotton Quality					
Grade (official standards)	SLM	SLM	SLM	SLM	M
Staple length----------inches	1-3/32	1-1/32	1-1/32	1-1/8	1-3/32
Fiber length (Fibrograph):					
Upper half mean--------inches	1.10	1.04	1.01	1.12	1.14
Uniformity ratio----------	81	80	78	78	79
Fiber fineness--------ug./in. 1/	4.3	4.2	4.2	3.6	4.3
Fiber maturity----------index 1/	78	77	75	72	79
Fiber tensile strength: 2/					
1/8" gauge----------index 3/	107	104	106	103	98
Zero gauge--------1,000 p.s.i.	81	81	78	79	81
Nonlint content-------percent 4/	3.0	3.4	3.9	4.4	3.8
Color of cleaned lint (R_d/b) 5/	74.5/7.9	72.0/9.8	73.0/9.4	76.8/7.8	76.5/8.7
Sugar content----------percent	0.3	0.0	0.2	0.2	0.2
Processing Results					
Picker and card waste----percent	7.2	7.7	8.1	9.8	9.1
Comber waste----------percent	14.5	14.2	16.8	17.7	13.7
Neps per 100 sq. in. of card web	9	12	12	17	4
Yarn skein strength:					
22s----------pounds	128(140)	125(136)	122(134)	128(140)	120(130)
50s----------pounds	46(50)	43(46)	42(47)	45(50)	43(47)
Average break factor----------	2558(2790)	2450(2646)	2392(2649)	2533(2790)	2395(2605)
Yarn appearance:					
22s----------grade	B (B+)	C+ (B+)	C+ (B)	C+ (B)	B (B+)
50s----------grade	C+(B)	C+ (C+)	C+ (C+)	C (C+)	C+ (B)
Average index----------	105(115)	100(110)	100 (105)	95 (105)	105 (115)

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Table 3.--Results of classification, fiber tests, and carded and combed (in parenthesis) yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 6-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest			
	Delfos 9169			
	Mississippi			Missouri
	Belzoni	Stoneville		Hayti
	Midseason	Early	Midseason	Midseason
Raw Cotton Quality				
Grade (official standards)	M	M+	LM	M
Staple length----------inches	1-3/32	1-5/32	1-1/8	1-1/8
Fiber length (Fibrograph):				
Upper half mean---------inches	1.05	1.18	1.13	1.12
Uniformity ratio----------	78	78	76	77
Fiber fineness--------ug./in. 1/	4.1	4.0	3.9	4.3
Fiber maturity----------index 1/	76	78	77	77
Fiber tensile strength: 2/				
1/8" gauge----------index 3/	95	99	95	97
Zero gauge--------1,000 p.s.i.	78	70	68	74
Nonlint content-------percent 4/	3.1	2.8	5.7	2.1
Color of cleaned lint (R_d/b) 5/	75.8/8.2	78.2/9.0	72.5/8.7	76.5/8.6
Sugar content----------percent	0.1	0.2	0.2	0.2
Processing Results				
Picker and card waste----percent	7.8	8.6	11.1	7.4
Comber waste----------percent	17.2	14.3	17.3	16.1
Neps per 100 sq. in. of card web	18	14	21	15
Yarn skein strength:				
22s----------pounds	117(132)	124(135)	118(133)	120(134)
50s----------pounds	41(46)	44(49)	43(48)	43(47)
Average break factor----------	2312(2602)	2464(2710)	2373(2663)	2395(2649)
Yarn appearance:				
22s----------grade	C+ (B)	C+ (B)	C (B)	C+ (B+)
50s----------grade	C (B)	C (C+)	C (C+)	C (C+)
Average index----------	95 (110)	95 (105)	90 (105)	95 (110)

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Table 3.--Results of classification, fiber tests, and carded and combed (in parenthesis) yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 6-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest			
	Deltapine 15			Stoneville 2B
	Arkansas		Mississippi	Mississippi
	Leachville		Tunica	Leland
	Early	Midseason	Midseason	Midseason
Raw Cotton Quality				
Grade (official standards)	SLM	SLM	M	LM+
Staple length----------inches	1-1/16	1-1/16	1-3/32	1-1/32
Fiber length (Fibrograph):				
Upper half mean---------inches	1.06	1.07	1.09	.99
Uniformity ratio----------	79	77	77	77
Fiber fineness--------ug./in. 1/	4.4	4.1	4.2	3.9
Fiber maturity----------index 1/	76	77	77	72
Fiber tensile strength: 2/				
1/8" gauge----------index 3/	97	100	106	90
Zero gauge--------1,000 p.s.i.	78	78	81	80
Nonlint content-------percent 4/	4.8	3.4	3.1	5.1
Color of cleaned lint (R_d/b) 5/	74.5/8.8	73.5/8.4	76.8/8.4	71.0/9.2
Sugar content----------percent	0.2	0.2	0.0	0.2
Processing Results				
Picker and card waste----percent	9.8	8.8	8.5	10.3
Comber waste----------percent	15.5	15.5	15.9	19.6
Neps per 100 sq. in. of card web	13	11	12	22
Yarn skein strength: 6/				
22s----------pounds	116(128)	128(137)	123(137)	108(124)
50s----------pounds	40(45)	44(48)	42(46)	37(43)
Average break factor----------	2276(2533)	2508(2707)	2403(2657)	2113(2439)
Yarn appearance: 6/				
22s----------grade	B (B+)	B (B+)	C+ (B)	C+ (B)
50s----------grade	C (C+)	C+ (C+)	C (C+)	C (C+)
Average index----------	100 (110)	105 (110)	95 (105)	95 (105)

1/ Determined by the Causticaire method using the Micronaire instrument.
2/ Determined by Pressley instrument.
3/ Index of 100 equals average strength of 1954 commercial crop of upland cotton.
4/ Determined by Shirley Analyzer.
5/ Determined by Nickerson-Hunter Colorimeter on lint cleaned by Shirley Analyzer.
6/ Data in parenthesis are for combed yarn process.

Table 4.--Results of classification, fiber tests, and combed yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 4-1/2 pounds per hour, crop of 1955

Test item	Results for specified variety state, market area, and period of harvest
	Pima S-1
	Arizona
	Peoria
	Early
Raw Cotton Quality	
Grade (official standards)	2
Staple length----------inches	1-7/16
Fiber length (array):	
Upper quartile----------inches	1.37
Coefficient of variation----------percent	30
Fiber fineness----------ug./in. 1/	3.4
Fiber maturity----------index 1/	78
Fiber tensile strength: 2/	
1/8" gauge----------index 3/	152
Zero gauge----------1,000 p.s.i.	100
Nonlint content----------percent 4/	2.4
Color of cleaned lint (R_d/b) 5/----------	70.5/11.1
Sugar content----------percent	0.1
Processing Results	
Picker and card waste----------percent	8.9
Comber waste----------percent	16.1
Neps per 100 sq. in. of card web----------	5
Yarn skein strength:	
50s----------pounds	70
80s----------pounds	37
Average break factor----------	3230
Yarn appearance:	
50s----------grade	A
80s----------grade	B+
Average index----------	125

1/ Determined by Causticaire method using the Micronaire instrument
2/ Determined by Pressley instrument.
3/ Index of 100 equals average strength of 1954 commercial crop of upland cotton.
4/ Determined by Shirley Analyzer.
5/ Determined by Nickerson-Hunter Colorimeter on lint cleaned by Shirley Analyzer.